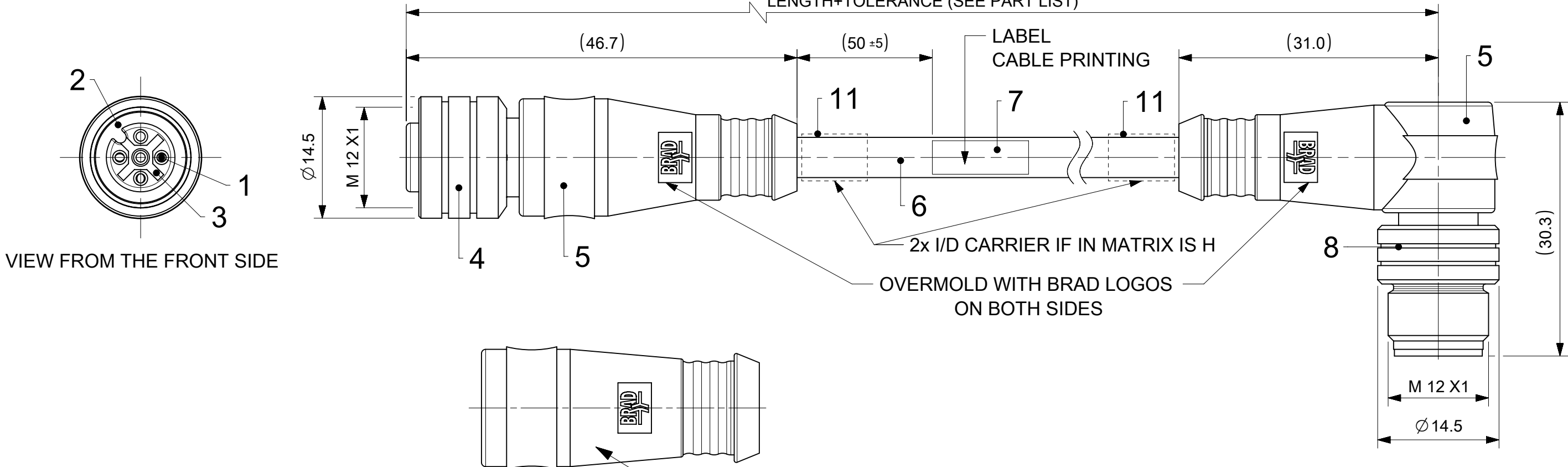


FEMALE PLUG M12 STRAIGHT TO MALE PLUG M12 90° ANGLED

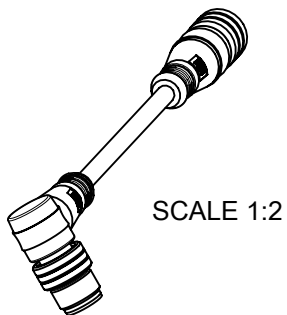


TECHNICAL SPECIFICATION:
CONTACT CURRENT RATING: 3-5 POLES 4A
8 POLES 2A
VOLTAGE RATING: 3-4 POLES 250V
5 POLES 60V DC
8 POLES 30V
PROTECTION CLASS: IP 67
TEMPERATURE: -25°C / +85°C

BILL OF MATERIAL

11	2 (SEE MATRIX)	ID CARRIER	PVC	TRANSPARENT
10	1	INSERT MALE	PUR	BLACK
9	3/4/5/8	CONTACT M12 MALE	BRASS	SELECTIVE GOLD OVER NICKEL
8	1	COUPLING NUT MALE	BRASS	NICKEL
7	1	LABEL	VINYL	YELLOW
6	-	CABLE	SEE MATRIX/ CABLE SPECIFICATION	---
5	-	OVERMOULD	TPU	SEE MATRIX
4	1	COUPLING NUT FEMALE	BRASS	NICKEL
3	1	INSERT FEMALE	PUR	BLACK
2	1	O-RING	FPM	RED
1	3/4/5/8	CONTACT M12 FEMALE	BRASS	SELECTIVE GOLD OVER NICKEL
ITEM	QTY.	DESCRIPTION	MATERIAL	FINISH/COLOR

DOCUMENT STATUS	P1	RELEASE DATE	2022/11/30	11:33:39
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DIMENSION UNITS	SCALE
mm	2:1
GENERAL TOLERANCES (UNLESS SPECIFIED)	
ANGULAR TOL	± 1.0 °
4 PLACES	±
3 PLACES	±
2 PLACES	± 0.05
1 PLACE	± 0.3
0 PLACES	± 0.5
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	

CURRENT REV DESC: OBSOLETE PART NUMBERS AS PER PCN#510807.

EC NO: 726454
DRWN: LIKITV
CHK'D: GGA
APPR: GGA

2022/09/27
2022/11/30
2022/11/30

INITIAL REVISION:
DRWN: DSOPPIN
APPR: RSILLER

2018/09/27
2018/10/22

THIRD ANGLE PROJECTION

DRAWING

SERIES

MATERIAL NUMBER

CUSTOMER

SHEET NUMBER

molex

CSE M12 XP AC FE STR MA RA XM

PRODUCT CUSTOMER DRAWING

DOCUMENT NUMBER

DOC TYPE

DOC PART

REVISION

1200070026

PSD

000

A7

SEE PART LIST

GENERAL MARKET

1 OF 4

ENGINEERING NO. - NUMERICAL CODE (Available parts see PART LIST table. Others on request).

88X032XXXXXX

88 = M12x1 Double ended

Poles:
3 = 3 Poles
4 = 4 Poles
5 = 5 Poles
8 = 8 Poles

Heads style:
032 = Plugs FE Straight & Male 90°

Cable types:
E02=0.25mm² PVC Black
E03=0.34mm² PVC Black
E13=0.75mm² PVC Yellow
E52=0.34mm² PVC Grey(RAL 7001)
E57=0.34mm² PVC Grey(RAL 7001)
H09=0.34mm² PUR Black
H69=0.34mm² PUR Grey LSOH SCR
I02=0.25mm² PVC Grey CEI
I03=0.34mm² PVC Grey CEI
I20=0.25mm² PVC Grey CEI SCR DC
I26=0.34mm² PVC Grey CEI SCR AC
P02=0.25mm² PUR/PVC Black
P03=0.34mm² PUR/PVC Black
P08=0.25mm² PUR Yellow HIFLEX
P20=0.34mm² PUR Grey LSOH braid
P82=0.34mm² PUR orange irradiated DC
S20=0.34mm² PVC Yellow SJTO braid

Units:
C = Centimeter
M = Meter
K = Kilometer
F = Feet

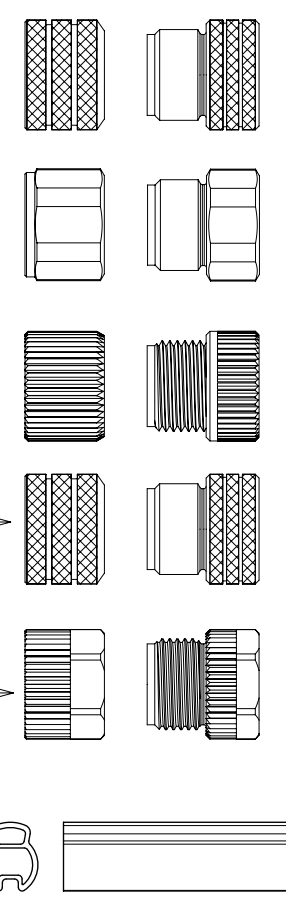
Length
Examples:
020 = 2 M
060 = 6 M
100 = 10 M

SPECIAL TYPES
XXXXXX

Overmold color:
Blank (Standard)=Black TPU
Blank=Yellow PVC for cables A09, S19, S20, S26
Blank=Yellow TPE-E for cables K03, K05
A=Grey / G=Black / Y=Yellow
Coupling Nut:
Blank (Standard)=Knurled Brass Ni Plated
1=Hexagonal Stainless steel
5=Knurled Derlin
7=Knurled Brass Ni Plated, Teflon Coated
Blank=7 for cables I20, I26, K03, K05, P82, S26
9=Knurled / Hexagonal Brass Ni Plated SW13

H= 2 pcs. of I/D Carrier PVC Transparent
(Cables lxx & P82 always with 2 pcs. of I/D Carrier even if no H in Engineering No.)

COUPLING NUT FEMALE MALE



CABLE SPECIFICATION

CABLE TYPE	NO. OF WIRES	CROSS SECTION	CABLE JACKET	UL	CSA	STATIC: TEMP. / BENDING RADIUS	DYNAMIC: TEMP. / BENDING RADIUS	DRAG CHAIN	SHIELD
E02	3 / 4 / 5 / 8	0.25mm²	PVC BLACK	UL 2464/1729	C22.2 I/II A/B 80°C/300V	-30°C to +80°C, 10xO.D.	-10°C to +80°C, 15xO.D.	-	-
E03	3 / 4 / 5	0.34mm²	PVC BLACK	UL 2464/1729	C22.2 I/II A/B 80°C/300V	-30°C to +80°C, 10xO.D.	-10°C to +80°C, 15xO.D.	-	-
E52	4	0.34mm²	PVC GRAY	-	-	- 30 to + 70°C	- 5 to + 70°C	-	-
H09	3 / 4 / 5	0.34mm²	PUR BLACK LS0H	UL 21198/10493	C22.2 I/II A/B 80°C/300V	-40°C to +80°C, 5xO.D.	-25°C to +80°C, 10xO.D.	2 000 000 cycles at 20°C, Temp. range +5°C to +60°C	-
H69	4	0.2mm²	PUR LSOH	-	-	-	-40°C to +80°C	-	-
P02	3 / 4 / 5 / 8	0.25mm²	PUR / PVC BLACK	-	-	-30°C to +80°C, 7xO.D.	-5°C to +80°C, 15xO.D.	-	-
P03	3 / 4 / 5	0.34mm²	PUR / PVC BLACK	-	-	-30°C to +80°C, >7xO.D.	-5°C to +80°C, >15xO.D.	-	-
P82	4	0.34mm²	PUR IRR ORANGE	-	-	-50°C to +105°C,	-50°C to +105°C,	-	-
I03	4	0.34mm²	PVC GRAY	-	-	-30°C to +70°C	-5°C to +70°C	-	-
K03	4	AWG18	TPE YELLOW	ITC E195601 OR PLTC	AWM I/II A/B FT4 LL54185	-	-40°C to +105°C	-	-
K05	4	0.34mm²	TPE YELLOW	ITC E195601 OR PLTC	AWM I/II A/B FT4 LL54185	-	-40°C to +105°C	-	-
S20	4	0.34mm²	PVC YELLOW	UL 2661/1731	C22.2 AWM II	-30°C to +105°C	-40°C to +105°C	-	-

CABLE LENGTH TOLERANCE

OVER	UPTO AND INCULDING	TOLERANCE
0	305	+19
305	915	+45
915	1830	+56
1830	3660	+89
3660	7320	+165
7320	14640	+317
14640	30500	+610
30500	>	+2% OF LENGTH

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DIMENSION UNITS mm

SCALE 1:1

GENERAL TOLERANCES (UNLESS SPECIFIED)

ANGULAR TOL ± 1.0 °

4 PLACES ±

3 PLACES ±

2 PLACES ± 0.05

1 PLACE ± 0.3

0 PLACES ± 0.5

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

THIRD ANGLE PROJECTION

DRAWING A3-SIZE

SERIES 120007

DOCUMENT NUMBER 1200070026

CUSTOMER GENERAL MARKET

SHEET NUMBER 2 OF 4

CURRENT REV DESC: OBSOLETE PART NUMBERS AS PER PCN#510807.

EC NO: 726454

DRWN: LIKITV

CHK'D: GGA

APPR: GGA

INITIAL REVISION:

DRWN: DSOPPIN

APPR: RSILLER

2022/09/27

2022/11/30

2022/11/30

2018/09/27

2018/10/22

moLEX

CSE M12 XP AC FE STR MA RA XM

PRODUCT CUSTOMER DRAWING

DOCUMENT STATUS P1 RELEASE DATE 2022/11/30 11:33:39

9

8

7

6

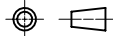
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3

2

1

	10	9	8	7	6	5	4	3	2	1			
F	PART LIST										F		
	NO.	MOLEX PN	ENGINEERING PN	LENGTH (mm)	NO.	MOLEX PN	ENGINEERING PN	LENGTH (mm)	NO.	MOLEX PN		ENGINEERING PN	LENGTH (mm)
	1	1200070158	883032E03M003	300	53	1200661018	884032K03M060	6000	104	1200669897		884032E03M040	4000
	2	1200070159	883032E03M006	600	54	1200661021	884032K03M090	9000	105	1200669890		884032P03M060	6000
	3	1200070160	883032E03M010	1000	55	1200661022	884032K03M100	10000	106	1200669891		884032P03M100	10000
	4	1200070161	883032E03M020	2000	56	1200661023	884032K03M120	12000	107				
	5	1200668205	883032E03M050	5000	57	1200661480	884032K03M200	20000	108				
	6	1200072378	883032E03M060	6000	58	1200660398	884032K05M005	500	109				
	7	1200668053	883032E03M100	10000	59	1200660400	884032K05M010	1000	110				
	8	1200668268	883032E03M200	20000	60	1200660401	884032K05M015	1500	111				
E	9	1200072879	883032H09M010	1000	61	1200660402	884032K05M020	2000	112				
	10	1200070166	883032I03M006	600	62	1200660403	884032K05M030	3000	113				
	11	1200668007	883032I03M010	1000	63	1200073045	884032K05M035	3500	114				
	12	1200070171	883032P03M006	600	64	1200660404	884032K05M040	4000	115				
	13	1200070172	883032P03M010	1000	65	1200660405	884032K05M050	5000	116				
	14	1200070173	883032P03M020	2000	66	1200660406	884032K05M060	6000	117				
	15	1200070174	883032P03M030	3000	67	1200073042	884032K05M070	7000	118				
	16	1200072294	883032P03M0305	3000	68	1200661540	884032K05M080	8000	119				
	17	1200668341	883032P03M050	5000	69	1200668345	884032P03M002G	200	120				
	18	1200668763	883032P03M0501	5000	70	1200072838	884032P03M003	300	121				
D	19	1200072705	883032P03M060	6000	71	1200071519	884032P03M006	600	122				
	20	1200070184	883032S20M010	1000	72	1200071407	884032P03M010	1000	123				
	21	1200070185	883032S20M020	2000	73	1200070547	884032P03M0105	1000	124				
	22	1200668663	884032E02M050	5000	74	1200669261	884032P03M015	1500	125				
	23	1200668072	884032E03M006	600	75	1200070026	884032P03M020	2000	126				
	24	1200668073	884032E03M010	1000	76	1200071520	884032P03M030	3000	127				
	25	1200668755	884032E03M012	1200	77	1200070914	884032P03M050	5000	128				
	26	1200668756	884032E03M014	1400	78	1200072213	884032P03M1005	10000	129				
	27	1200665032	884032E03M020	2000	79	1200668177	884032S20M020	2000	130				
	28	1200071014	884032E03M030	3000	80	1200668161	884032S20M030	3000	131				
C	29	1200072163	884032E03M0501	5000	81	1200070907	884032S20M050	5000	132				
	30	1200668075	884032E03M100	10000	82	1200668974	885032E03M003	300	133				
	31	1200668200	884032E03M1001	10000	83	1200668979	885032E03M006	600	134				
	32	1200668307	884032E03M1005	10000	84	1200071271	885032E03M010	1000	135				
	33	1200668309	884032E03M1205	12000	85	1200668092	885032E03M020	2000	136				
	34	1200668173	884032E03M1501	15000	86	1200668975	885032E03M025	2500	137				
	35	1200668223	884032E03M200	20000	87	1200668976	885032E03M030	3000	138				
	36	1200668308	884032E03M2005	20000	88	1200668977	885032E03M050	5000	139				
	37	1200071277	884032E52M010A	1000	89	1200668978	885032E03M100	10000	140				
	38	1200070841	884032E52M020A	2000	90	1200668493	885032H09M010	1000					
B	39	1200668494	884032H09M010	1000	91	1200668603	885032P03M020G	2000					
	40	1200668290	884032H09M020	2000	92	1200661925	885032P03M080	8000					
	41	1200668311	884032H69M010	1000	93	1200661926	885032P03M100	10000					
	42	1200668076	884032H69M030	3000	94	1200669119	885032P03M190	19000					
	43	1200668312	884032H69M050	5000	95	1200669767	888032E02M0201	2000					
	44	1200665040	884032H69M100	10000	96	1200669768	888032E02M0301	3000					
	45	1200072424	884032I03M003	300	97	1200669769	888032E02M0501	5000					
	46	1200668522	884032I03M020	2000	98	1200669770	888032E02M1001	10000					
	47	1200661012	884032K03M006	600	99	1200669892	884032E03M009	900					
	48	1200661013	884032K03M010	1000	100	1200669893	884032E03M013	1300					
A	49	1200661014	884032K03M020	2000	101	1200669894	884032E03M016	1600					
	50	1200661015	884032K03M030	3000	102	1200669895	884032E03M021	2100					
	51	1200661598	884032K03M036	3600	103	1200669896	884032E03M032	3200					
	52	1200661017	884032K03M050	5000									
DOCUMENT STATUS		P1	RELEASE DATE	2022/11/30	11:33:39								
FORMAT: master-b-prod-A3 REVISION: J1 DATE: 2021/05/01		9	8	7	6	5	4	3	2	1			
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION													
DIMENSION UNITS		SCALE		CURRENT REV DESC: OBSOLETE PART NUMBERS AS PER PCN#510807.				molex					
mm		1:1						CSE M12 XP AC FE STR MA RA XM					
GENERAL TOLERANCES (UNLESS SPECIFIED)													
ANGULAR TOL		± 1.0 °											
4 PLACES		±						EC NO: 726454					
3 PLACES		±						DRWN: LIKITV 2022/09/27					
2 PLACES		± 0.05						CHK'D: GGA 2022/11/30					
1 PLACE		± 0.3						APPR: GGA 2022/11/30					
0 PLACES		± 0.5						INITIAL REVISION:					
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION		DRAWING		SERIES		DOCUMENT NUMBER		DOC TYPE			
				A3-SIZE		120007		1200070026		PSD			
								MATERIAL NUMBER		CUSTOMER			
								SEE PART LIST		GENERAL MARKET			
										SHEET NUMBER			
										4 OF 4			